

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Please cancel claims 32 to 38 and 55 to 56 without prejudice or disclaimer.

Please add new claims 57 to 69 as follows:

1 to 56. (cancelled)

57. (new) A computer system comprising:

(a) a user interface for entering a first experimental data set comprising statistical values which are a measure of differential expression between a test sample and a control sample of at least one nucleic acid molecule comprising the nucleotide sequence selected from the group consisting of SEQ ID NO: 1 to 1124;

(b) a database comprising statistical values which are a measure of differential expression of nucleic acid molecules comprising the nucleotide sequence of at least one nucleic acid molecule selected from the group consisting of SEQ ID NO: 1 to 1124 in a individual diagnosed with BPH compared to a normal individual, and

(c) software for comparing said statistical values from said first experimental data set with said statistical values in said database to generate a second experimental data set which is indicative of the presence or absence of BPH.

58. (new) The computer system of claim 57, wherein the database further comprises nucleotide sequence information for said nucleic acid molecules.

59. (new) The computer system of claim 57, further comprising records including information from an external database, which information correlates said nucleic acid molecules to records in said external database.

60. (new) The computer system of claim 59, wherein said external database is GenBank.

61. (new) The computer system of claim 58, wherein said database in (b) further comprises descriptive information about said nucleic acid molecules.

62. (new) The computer system of claim 57, wherein said first experimental data set further comprises descriptive information pertaining to the test sample.

63. (new) The computer system of claim 62, wherein said descriptive information is selected from the group consisting of patient age, disease status and treatment status.

64. (new) The computer system of claim 63, wherein said disease status information comprises prostate specific antigen (PSA) serum level values.

65. (new) The computer system of claim 63, wherein said disease status information comprises information related to disease progression.

66. (new) The computer system of claim 57, wherein said second experimental data set contains statistical values for the expression of nucleic acid molecules which correlate with the presence of BPH.

67. (new) The computer system of claim 57, wherein said second experimental data set contains statistical values for the expression of nucleic acid molecules which correlate with the absence of BPH.

68. (new) The computer system of claim 57, wherein said first experimental data set comprises statistical values which are a measure of differential expression between a test sample and a control sample of at least two nucleic acid molecules comprising the nucleotide sequence selected from the group comprising SEQ ID NO: 1 to 1124.

69. (new) The computer system of claim 57, wherein said first experimental data set comprises statistical values which are a measure of differential expression between a test sample and a control sample of at least ten nucleic acid molecules comprising the nucleotide sequence selected from the group comprising SEQ ID NO: 1 to 1124.